REMARKS

Applicant thanks the examiner for her thoughtful attention to the application. In response to the foregoing office action and with a mind to present the application in a condition for allowance, applicant has amended the application as follows. No new matter is believed to have been entered with any of the amendments.

Amendments have been made to the specification to correlate with the drawings and provide antecedence to the amended claims.

Claims 1-33 and 35 are pending in the application and all claims stand rejected. Claims 1, 5-7, 9, 11-19 and 35 stand rejected as being anticipated under 35 USC §102 by Irwin (5,862,561 taken with Irwin 5,193,242 and 4,580,306). Claims 2-4, 8 and 20-33 stand rejected as being obvious under 35 USC §103 over Irwin in view of the Gardner Denver operating manual. Claim 10 stands rejected as being obvious under 35 USC §103 over Irwin in view of Clotz (2,267,493).

Claims 1, 9, 12-14, 20, 21 and 35 are **provisionally** rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-10 and 12-20 of copending application no. 10/673,742, **now US 7,040,331**, which is a continuation of US 6,626,195. In regard thereto, enclosed is a terminal disclaimer to US 7,040,331 with the fee. Applicant therefore requests the examiner withdraw her objections thereto.

Collectively Irwin '561, '242 and '306 is cited for showing a framework with a spiral wound "snake" extension/retraction (feed control) assembly 30, a concentric snake take-up drum 16, rollers 36 and 36a for directing axial movement of the snake, helical grooves 38 in the rollers 36a, and webs and a shroud at a drum 16.

As noted from the Irwin patents, the **stationary axial feed control assembly** used in each of the patents is the assembly 30 described at the 4,580,306 patent. The construction of the assembly 30 is generally described at column 5, lines 1-35 and column 6, lines 1-37. The assembly 30 provides a collection of rollers 36 and 36a that can be clamped via assembly 54 to contact a spiral wound spring housing 18. A cam 57 and spring 64 are used at the assembly 54 to bias rollers 36 and 36a.

The smooth and helical rollers 36 and 36a are provided to engage the directional windings of the spiral wound spring housing of the snake 18. The directional movement of the snake 18 depends upon the tilt of the rollers 36 and/or cooperation of the helical grooves 36a with the spiral wound housing 18. The rollers 36 and 36a are **passively mounted** (i.e. are not driven via any motor) and depend upon a motor 24 to rotate a take-up drum 16 at a relatively slow rate (versus applicant's smooth walled hose) to axially direct the snake 18.

The housing 18, otherwise, contains a separate tube 36 having a flow bore 38, reference Irwin 5,862,561, column 5, lines 10-20. The tube 36 is never contacted by the feed control assembly.

Irwin is also intended for use only with pressures such as found at a **domestic water source** ('561, column 6, line 59 – column 7, line 12 which nominally don't exceed 60 psi. Such pressures are nowhere near the 1,000 psi plus pressures or speeds of rotation used with applicant's equipment.

With additional reference to Figs. 1, 2, 4 and 5, and column 3, lines 14-24 of the '242 patent, a single motor 30 is used to drive the drum 14. Vanes 28a at the drive hub engaging means 28 releasably engage the drive hub 18, but no particular discussion is

provided to the construction of the drum 14. The drum mounted motor 30 is however again used to direct the snake to and fro via the cooperation of the rollers 36 and 36a with the spiral windings at the outer housing.

In contrast and distinction to Irwin, applicant provides an assembly having a motor driven (i.e. active) transport assembly that cooperates with a smooth outer walled hose that contains water at pressures in excess of 1000 psi and is operative to direct the hose at axial speeds in a range of **2 feet per second** to 10 feet per minute. A first motor drives rollers that contact the hose. The pinch rollers include **endless grooves** that contain the hose. A second motor independently rotates the transport assembly. The transport assembly includes an air swivel to couple pneumatic control lines to the motors and other control devices arrayed about the assembly. The transport assembly is detachably mounted to the framework at the air swivel.

The foregoing features and others are particularly provided for at the amended claims and distinguish applicant's invention from Irwin. Applicant therefore requests the examiner to withdraw her objections under 35 USC 102.

The Gardner Denver operating manual is cited for showing various features argued to be common with applicant's claims (i.e. a gun and a brake). To the extent differences exist, for example GDI's drum brake, the examiner argues a disc brake would be an obvious substitute.

To support her assertion, the examiner references GD drawing PNMT7510 (sheets 1-3, marked-up copies attached) and the referenced disc brake. Other than a reference to "**drag brake**-drum brake" in the materials list and mounting location depiction at the drawings, the manual provides no description to where and/or how the

drum brake is coupled to the assembly or any particular subassembly. That is, the location of the drum brake from sheet 2 of the PNMT7510 drawing only suggests a mounting position adjacent the hose reel but not the manner of coupling or operation of the drum brake relative to the reel or any other subassembly. The reference to "drag" also only infers a frictional contact and not the ability of the brake to stop the reel. Moreover, the description to synchronization only discusses the adjustment of air flow to control the relative speed of the drum motor and pinch roller motor and not the drum brake. The extremely limited information thus does not support the examiners assertion that it would have been obvious from the GDI manual to substitute a disc brake into the asserted combination with Irwin and would require undue experimentation to assimilate and modify any collective assembly.

Applicant therefore contends that such a substitution would not be obvious, requires structure that is not provided for at the cited references and would require undue experimentation. Moreover, no motivation is provided at the references to make such a substitution. Irwin also provides no suggestion or motivation to use a brake (either drum or disc) or a motor driven hose feed assembly and the GDI manual provides no motivation to substitute a disc brake for the drum brake nor any support for how or where to mount or use the substituted disc brake. Any combination would also require extensive modifications to substitute and adapt the GDI motorized pinch roller assembly for Irwin's passive feed rollers to accommodate Irwins concentric drum and to include a disc brake and all of which modifications fly in the face of the actual teachings of the references. In short, applicant believes the examiner's rejection constitutes an

impermissible hindsight reconstruction that is not supported from the references and that would require undue experimentation.

Upon additional examination of the GDI manual, it is noted the GDI drive utilizes **3 motors** to extend and retract the hose. Two motors 4 and 17 are used to respectively drive **both** the pinch roller assembly and the hose drum/reel. A third motor 8 drives the **foam filled tires** that push the tube/hose into a pipe being cleaned. Axial movement particularly depends upon the relative operation of the motors 17 and 8. A tensioner 10 is used to adjust the tension of the tires, but it is not clear whether the pinch roller assembly can be detached without changing the tension. The GDI assembly also provides frame mount pneumatics and does not include a pneumatic/air swivel. As earlier noted, the GDI reel is also mounted to rotate in-line with GDI's hose drive and therefore the GDI hose is not layered in concentric relation to the drive axis as applicant claims.

Clotz (2,267,493) is cited for showing annular bands 21. The wires/rods 20, 21 and 29, however, neither disclose nor suggest planar webs, nor a channeled storage space at multiple webs or between surrounding solid shrouds as claimed by applicant.

In contrast to the foregoing references, applicant provides a motor driven hose transport means having two motors which rotate the assembly and separately drive grooved rollers that engage a smooth walled hose. The transport assembly includes a pneumatic/air swivel and detachably mounts to the framework. An eccentric assembly at the transport assembly controls the coupling of the rollers to the hose and an independent tensioner permits the detachment of the transport assembly without affecting the established tension. Clamp couplers secure the transport assembly and reel to the framework and permit detachment as complete units.

Applicant's reel is passively mounted and follows the rotation determined by the hose transport assembly. Applicant's reel is also mounted concentric to the longitudinal drive axis, which permits applicant's assembly to operate without vibration and obtain the appreciably higher hose travel speeds (i.e. as much as 2 feet per second or 120 feet per minute). Applicant's shrouded enclosure and layering arm also facilitates the collection and layering of the hose at these higher hose feed/retraction rates and which is not achievable with an in-line mounting.

In distinction to the cited references and as provided at the amended claims, applicant provides a novel combination to a high pressure hose cleaning assembly capable of directing a hose and multi-orifice spray tip in a reciprocating fashion along a longitudinal drive axis via a rotating hose transport means and passively driven reel means. A first motor drives provided endless, grooved, pinch rollers and a second motor rotates the transport assembly. The transport means includes a pneumatic swivel that is detachably mounted to the framework. The pinch rollers are clamped with a pivoting eccentric linkage and do not affect the tension established at the rollers with an independent tensioner.

Additionally, the hose reel is concentrically mounted relative to the transport means and hose drive axis such that the hose is concentrically coiled relative to the drive axis. The reel means is variously constructed from a plurality of slotted/channeled webs and/or shroud that define the hose storage space. The assembly is moreover operationally stable at rates of hose travel greater than achievable with the devices of the cited references.

With the foregoing amendments and comments, the amended claims are believed distinguishable over the art and the application is believed in a condition for allowance. No new matter has been entered with any of the foregoing amendments. Applicant therefore requests the examiners reconsideration of the application and an early notice to the allowance thereof.

If any matters remain that can be handled with a telephone conference, the examiner is encouraged to contact the undersigned.

Respectfully submitted,

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Enclosures